1. FEHSHTAT, N. [I.]

2. USSR (600)

4. Tractors--Repairing

7. Eliminating seasonality in repairing tractors and agricultural machinery
    and agricultural machinery at machine-tractor stations and state farms
    engaged in cotton growing, Khlopkovodstvo, 3, No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953,
    Uncl.

MUKHAMEDZHANOV, M.; FERSHTAT, N.; RZHEVSKIY, G.; ZHURAVLEV, B.S., redaktor;
SOLYANOVA, N.N., redaktor; RAKHMATULLIN, F., tekhnicheskiy redaktor

[Checkrow cultivation of cotton] Kvadratno-gnezdovaia kul'tura
khlopchatnika. Tashkent, Go.s izd-vo UzSSR, 1955. 112 p.   (MIRA 9:8)
        (Cotton growing)

FERSHTAT, Naum Il'ich, zaslushennyy mekhanizator Uzbekskoy SSR; FREMKIN,
Vladimir Mikhaylovich, zaslushennyy mekhanizator Uzbekskoy SSR;
GRUSHIN, A., red.; ABBASOV, T., tekhred.

[Over-all mechanization of cotton-growing in Uzbekistan]
Kompleksnaia mekhanizatsiia khlopkovodstva v Uzbekistane.
Tashkent, Gos.izd-vo Uzbekskoi SSR, 1960. 63 p.
(MIRA 14:3)

(Uzbekistan--Cotton growing)   (Farm mechanization)

137-58-6-11481

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 33 (USSR)

AUTHOR: Fershtenfel'd, A.A.

TITLE: Automation of Certain Hydrometallurgical Processes at the
            Noril'sk Kombinat (Avtomatizatsiya nekotorykh protsessov
            gidrometallurgii na Noril'skom kombinate)

PERIODICAL: Byul. Tsentr. in-t inform. M-va tsvetn. metallurgii
             SSSR, 1957, Nr 2, pp 20-23

ABSTRACT: The system of automatic control (SAC) for hydrometallurg-
             ical processes of precipitation of metal consists of the follow-
             ing interrelated automatic regulating devices (A): An A for
             piezoelectrical measurement of the level of the salt solution in
             a tank and a temperature A of electronic balanced-bridge type
             functioning as a unit with the first A and influencing the de-
             livery of steam to the tank directly and that of hypochlorite
             through a special metering device. An overall diagram of the
             SAC for hydrometallurgical reduction and the electric circuitry
             are presented.

Card 1/1   1. Metals--Reduction   2. Control systems--Design   M.L.
              3. Control systems--Equipment

14(5)

SOV/112-59-5-9631

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 169 (USSR)

AUTHOR: Shteyn, S. A., Fershtenfel'd, A. A., Mednis, E. F., and
Kritskiy, Ye. L.

TITLE: Comparative Tests of Various Methods of Automatic Control for Ball Mills

PERIODICAL: Obogashcheniye rud, 1957, Nr 6, pp 55-66

ABSTRACT: Three methods of automatic control of mill operation were tested at
the Noril'sk concentrating plant: constant weight of feed, constant noise, and
constant circulating load; the tests were conducted from January, 1956, to
April, 1957. A short description and a comparison of the above control
methods are given. Seventeen illustrations.
                                                                        A.A.S.

Card 1/1

SADYKHOV, A.G., starshiy nauchnyy sotrudnik (baku, Balakhanskoye shosse,
1937-y kvartal, d.1, blok, 3, kv.19); FERSHTER, B.V.

Development of cancer on old scars and following chronic
osteomyelitis. Ortop. travm. i protez. 24 no.2:54-57 F'63.
(MIRA 16:10)
1. Iz ortopedicheskogo otdeleniya (zav. - kand.med.nauk A.G.
Sadykhov) Bakinskogo instituta travmatologii i ortopedii
(dir. - kand.med.nauk A.A.Ismailov).

MARMER, Eduard Nikitovich; FERSHTER, Levit Moiseyevich; SAPAROVA, A.L., red.; VORONIN, K.P., tekhn.red.

[Design of vacuum systems of electric furnaces] Raschet i proektirovanie vakuumnykh sistem elektropechei. Moskva, Gos. energ.izd-vo, 1960. 97 p. (Biblioteka elektrotermista, no.3).

(MIRA 14:2)

(Electric furnaces)   (Vacuum apparatus)

FERSHTER, L. M.

PHASE I BOOK EXPLOITATION   SOV/5038

Marmer, Eduard Nikitovich, and Levit Moiseyevich Fershter

Raschet i proyektirovaniye vakuumnykh sistem elektropechey (Calculating and Designing the Vacuum Systems in Electric Furnaces) Moscow, Gosenergoizdat, 1960. 97 p. 7,000 copies printed. (Series: Biblioteka elektrotermista, vyp. 3)

Ed. (of the Series): A.D. Svenchanskiy; Ed.: A.L. Saparova; Tech. Ed.: K.P. Voronin.

PURPOSE: This booklet is intended for engineers and technicians of plants and scientific research institutes.

COVERAGE: The authors review methods of selecting vacuum equipment, present characteristics of this equipment, and discuss its location in vacuum systems of electric furnaces. Basic theoretical principles applied in calculating vacuum systems are discussed briefly. Examples of designing vacuum systems for various electric furnaces are also included. No personalities are mentioned. There are 40 references: 28 Soviet, 10 English, 1 French, and 1 German.

Card 1/3

Calculating and Designing the Vacuum Systems (Cont.)   SOV/5038

TABLE OF CONTENTS:

Card 2/3

Calculating and Designing the Vacuum Systems (Cont.)   SOV/5038

AVAILABLE: Library of Congress

Card 3/3   VK/wrc/gmp
                                                                 5-17-61

L 07380-67   EWT(m)/EWP(t)/ETI   IJP(c)   JD

ACC NR: AP6027753   (N)   SOURCE CODE: UR/0370/66/000/004/0163/0166

AUTHOR: Vigdorovich, V. N. (Moscow); Fershter, L. M. (Moscow)   /8

ORG: None

TITLE: Continuous zone-transport recrystallization in single-stage installations

SOURCE: AN SSSR. Izvestiya. Metally, no. 4, 1966, 163-166

TOPIC TAGS: zone refining, tin, metal purification

ABSTRACT: Data are given from experiments of
tin purification by the zone-transport method
on the single-stage unit shown in the figure.
Quartz tube 1 with a diameter of 20 mm has a
longitudinal cutout on one end, is connected
to quartz vessel 2 on the other end and has a
tubular branch 3. The melting zone (70-80 mm
long) is produced by electric resistance heater
4 which moves at a rate of 5 cm/hr (from right
to left). A second resistance heater 5 is used
for melting the initial material and maintaining
it in the molten state (250-265°C). Tables are
given showing the results of spectral analysis
for determination of copper, silver and lead
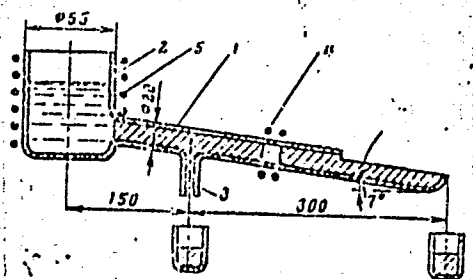
Card 1/2   UDC: 669.2/8.43

L 07380-67

ACC NR: AP6027753

impurities for fifteen passes through this single-stage equipment. The repeatability of the results, the homogeneity of the material and the efficiency factors achieved are encouraging and indicate that further work should be done on perfecting this type of equipment for continuous zone refining. Orig. art. has: 3 figures, 3 tables.

SUB CODE: 11/ SUBM DATE: 08Jan65/ ORIG REF: 007/ OTH REF: 005
13/

Card 2/2

Krashtman, Yu. M.

... of artificial earth satellites in _____

Geodeziya i kartografiya, no. 11, 1964, 67-77

... artificial earth satellite, satellite photography, geodesy, geodetic

... past observations of the moon's orbit are: 1) observation of satel-
... orbit coordinates ...

Z I9??5-65

A   N :   AP4049472

                          . Pa llat n a t a y
                                  h t d   n   xa
          nd is described, as is the Baker-Nann camera, a device for accurate
               Other b ervat n qu
            British Ascania movie-theodolite. The d a   f "harmonic"

ASSOCIATION: none

SUBMITTED: OO   ENCL: 00

SUB CODE: HS, SV   NO REF SOV: 003   OTHER: 001

Card 2/2

VERSHTER, S.I., inzhener.

Coefficient of demand of groups of welding transformers. Prom.
energ. 12 no.7:31-32 Jl '57.   (MIRA 10:8)
          (Electric welding)   (Electric transformers)

SPEVAK, L.B.; FERSHTER, S.I.

Concerning M.R.Naifel'd's article "Pressing problems in the prevention
of injuries from electricity." Prom. energ. 18 no.9:54-55 S '63.
(MIRA 16:10)
1. TSentral'nyy nauchno-issledovatel'skiy institut mekhanizatsii i
elektrifikatsii sel'skogo khozyaystva nechernozemnoy zony SSSR
(for Spevak). 2. Giproneftestroy, Kuybyshev (for Fershter).

MURAV'YEV, V.P., kand.tekhn.nauk; FERSHTER, S.I., inzh.

Start of three-phase motors from a network with limited power
handling capacity. Prom.energ. 19 no. 4:18-20 Ap '64.
(MIRA 17:5)

1. Kemerovskiy gornyy institut (for Murav'yev). 2. Giproneftestroy,
g. Kuybyshev (for Fershter).

FERSHTUDT, I.I.; FAYNBERG, Z.L.

Make wider use of the new equipment. Tekst.prom. 21 no.5:27-30
My '61.
(MIRA 15:1)
(Spinning machinery)

Cand Med Sci

FERSHTUDT, V. I.

Dissertation: "Relief Measures in the Cases of the Acute Diseases of Abdominal Organs Requiring Immediate Surgical Treatment."
12/6/50

First Moscow Order of Lenin Medical Inst.

SO Vecheryaya Moskva
       Sum 71

EXCERPTA MEDICA Sec 17 Vol 5/3 Public Health Mar 59

846. STUDY OF THE INCIDENCE OF LUNG CANCER (Russian text) - Fershtudt V. I. - SOVETS. MED. 1958, 1 (130-135) Tables 2

108 cases observed at the oncological dispensary of Tula (town and district) are analysed, as well as the oncological statistics for this district from 1950-1954. Seventy-two of the 108 cases of bronchial cancer in 1954 reported to the dispensary; 17 of them were referred to other institutions for further treatment. Thirteen cases of lung cancer in Tula were first recognized in hospital shortly before death. From 1950 to 1954, the incidence of lung cancer increased 6-fold (more in the town than in the country). Most cases occurred in the age group 50-70. Men were affected 6 times as often as women. The average survival of the patients after establishment of the diagnosis was 4 yr. Only 4 of the 108 patients were considered operable; 2 of these accepted operation. Proposals are made for improvement of the work of the oncological dispensaries, viz.: (1) health education; (2) early referral of cases to trained specialists; (3) postgraduate instruction of GP's concerning lung cancer; (4) comparative investigations in large towns, especially industrial towns; (5) collection of exact anamnestic data to evaluate environmental causal factors (industrial gases, dust, cigarette smoking, etc.).

Paul - Magdeburg (XVII,5,16)

Iz kafedry organizatsii zdravookhreneniya (zav. - dotsent S. V. Kurashov) I Moskovskogo ordena Lenina Meditsinskogo instituta imeni I.M.Sechenova

FERSHTUDT, V.I.

Problems of lung cancer morbidity among the population of Moscow, 1955 - 1958. Trudy 1-MI 16:51-62 '62.   (MIRA 17:4)

1. Iz kafedry organizatsii zdravookhraneniya (zav. - dotsent S.V.Kurashov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

RODOV, Ya.I.; KOSAGOVSKIY, I.V.; GOMEL'SKAYA, G.L.; LAVROVA, I.T.;
  SOBOLEVSKIY, G.N.; SHTRAUS, Z.E.; TROSHINA, I.M.; FERSHTUDT, V.I.

"Theory and organization of the Soviet public health system"
by G.A. Batkis and L.G.Lekarev. Reviewed by IA.I. Rodov and
others. Zdrav. Ros. Feder. 6 no.4:41-42 Ap '62.   (MIRA 15:4)
          (PUBLIC HEALTH)   (BATKIS, G.A.)   (LEKAREV, L.G.)

GOMEL'SKAYA, G.L.; KOSAGOVSKIY, I.V.; LAVROVA, I.G.; RODOV, Ya.I.;
    SOBOLEVSKIY, G.N.; TROSHINA, I.M.; FERSHTUDT, V.I.;
    SHTRAUS, Z.E.; MEL'NIKOV, Ye.B., red.

[Problems for practical work on the organization of public
health] Zadaniia k prakticheskim zaniatiiam po organizatsii
zdravookhraneniia. Izd.2., ispr. i dop. Moskva, 1963. 167 p.
                                    (MIRA 16:12)
1. Moscow. Pervyy meditsinskiy institut. Kafedra organizatsii
zdravookhraneniya. 2. Kafedra organizatsii zdravookhraneniya
Pervogo moskovskogo meditsinskogo instituta (for all except
Mel'nikov).
            (PUBLIC HEALTH--HANDBOOKS, MANUALS, ETC.)

1.   FERSHTUT, N. S.; TORBAN, S. S.

2.   USSR (600)

4.   Ice Fishing

7.   Mechnization of ice fishing, Ryb. khiz., 29, no. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April   1953, Uncl.

1. FERSHTUT, N.S.

2. USSR (600)

4. Nets

7. Self-opening trap for a conical pick-up net. Ryb. khoz. 29, No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, ___April___ 1953, Uncl.

FERSMAN A. A.

84. CIRCUITS FOR SUPPRESSING PULSE INTERFERENCE IN RADIO RECEIVERS.—V. E. Magdesiev & A. A. Fersman, (Izvestiya Elektroprom. Slab. Toka, Nr. 10, 1940, pp. 44-50.)

There are three types of circuits for suppressing interference from industrial sources, which usually takes the form of short pulses of great intensity: (1) circuits reducing the interference amplitude to the level of the maximum signal amplitude; (2) circuits reducing to zero the voltages of both the signal and interference at the moment when interference takes place, and (3) circuits reducing the interference voltage to the level which the signal had when interference appeared. Circuits suitable for each type of operation, including those developed in Russia, are shown and discussed. The third type is considered to be the most satisfactory, but all three types operate only if the interference voltage exceeds that of the signal during 100% modulation. Experimental curves are plotted (Figs. 8 & 9) showing a probable distribution of amplitudes per second corresponding to interference from various industrial sources. It is clear from these curves that the circuits discussed may not be effective under certain conditions. Accordingly, a circuit (Fig. 10) is proposed in which the sensitivity is automatically regulated according to the depth of the signal modulation. In conclusion, circuits with automatic adjustment of sensitivity depending on the carrier-wave voltage are briefly discussed.

IL'GEKIT, F.E.; SHAPIRO, D.N.; FOMENKO, L.A.; KARPINSKIY, M.A.; VERSMAN, A.A.;
PEVNITSKIY, V.P. [reviewers]; LYUTOV, S.A. [author].

"Industrial interference with radio reception and its control." S.A.Liutov.
Reviewed by F.E.Il'gekit, D.N.Shapiro, L.A.Fomenko, M.A.Karpinskii, A.A.
Fersman, V.P.Pevnitskii. Elektrichestvo no.12:85-87 D '53.   (MLRA 6:11)

1. TSentral'naya laboratoriya po bor'be s industrial'nymi radiopomekhami
MESEP SSSR (for Il'gekit, Shapiro and Fomenko). 2. Leningradskiy elektro-
tekhnicheskiy institut (for Karpinskiy). 3. Leningradskoye vyssheye more-
khodnoye uchilishche (for Fersman and Pevnitskiy).   *Medical*
                    (Radio--Interference) (Liutov, S.A.)

RUBINSHTEYN, Yakov Moiseyevich,[deceased]; STARIK, M.Ye., dotsent, retsensent;
BORODIN, N.I., dotsent, kand.tekhn.nauk, red.;-FERSMAN, A.A.,
dotsent, kand.tekhn.nauk, red.; CHERNYAK, S.I., dotsent, kand.tekhn.
nauk, red.; DENISOV, K.N., red.izd-va; DROZHZHINA, L.P., tekhn.red.

[Radio wave propagation and antenna feeding devices] Rasprostranenie
radiovoln i antenno-fidernye ustroistva. Leningrad, Izd-vo "Morskoi
transport," 1960. 387 p.   (MIRA 13:7)
         (Radio waves)   (Antennas (Electronics))

4196?
S/194/62/000/009/082/100
D413/D308

AUTHOR: Fersman, A. A.

TITLE: Interference eliminator units

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,
              no. 9, 1962, abstract 9-7-138 s(Byul. tekh.-ekon. in-
              form. M-vo morsk. flota SSSR, no. 3(42), 1961, 82-86)

TEXT: The interference eliminator units for the marine communica-
tions receivers 'Volna' and AC-2 (AS-2), designed to attenuate
pulsed interference, can be connected in without any modification
or retuning of the receivers. Pulsed interference is suppressed in
the units by limiters according to the signal level in an IF ampli-
fier. /¯Abstracter's note: Complete translation._7

Card 1/1

ACCESSION NR: AP4041022   S/0120/64/000/003/0081/0084

AUTHOR: Fersman, A. A.; Krivetskiy, A. A.

TITLE: Analyzer of the probability density of irregular phase difference

SOURCE: Pribory* i tekhnika eksperimenta, no. 3, 1964, 81-84

TOPIC TAGS: phase difference analyzer, phase difference probability density

ABSTRACT: An amplitude-independent method for measuring the probability density of the irregular phase difference between a random-phase voltage and a reference voltage of the same frequency is suggested. The method is based on a special device (which includes a ferrite-core nonlinear coil) for isolating a zero phase in the reference and test channels. A block diagram (see Enclosure 1) of the instrument and a simplified connection diagram of the zero-phase isolator are supplied. Orig. art. has: 3 figures and 7 formulas.

ASSOCIATION: none

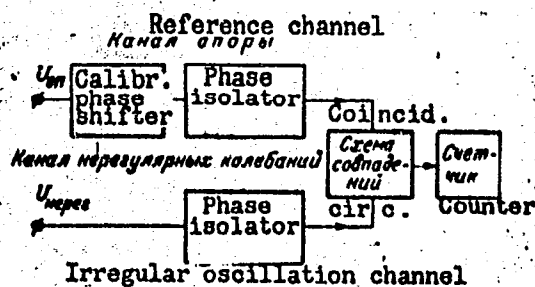SUBMITTED: 05Jun63   ENCL: 01

SUB CODE: EC   NO REF SOV: 001   OTHER: 000

Card 1/2

Reference channel
Канал опоры

U_m | Calibr. phase shifter | Phase isolator |

Coincid.

Канал нерегулярных колебаний

Схема совпадений circ.

$U_{мерее}$ | Phase isolator |

Счетчик Counter

Irregular oscillation channel

Block diagram of an analyzer of the probability
density of irregular phase difference

Card 2/2

FERSMAN, A.Ye., akademik

Lomonosov in the history of Russian science. Priroda 50
no.11:14-20 N '61.   (MIRA 14:10)
        (Lomonosov, Mikhail Vasil'evich, 1711-1765)

FERSMAN, A.Ye., akademik

Time...atom...thought... (excerpts from an unfinished book).
Tekh.mol. 31 no.2:2 '63.   (MIRA 16:6)
                        (Atoms)

FERSMAN, Aleksandr Yevgen'yevich, akademik; MAMUROVSKIY,A.A.[deceased],otv.
red.; BELOV, N.V., akademik, red.; VINOGRADOV, A.P., aka-
demik, red.; SHCHERBAKOV, D.I., akademik, red.; SAUKOV, A.A.,
red.; SHCHERBINA, V.V., doktor geol.-min. nauk, red.; POPOVA,
T.S., red. izd-va; POPOVA, S.T., red.; PRUSAKOVA, T.A., tekhn.
red.; GUSEVA, A.P., tekhn. red.

[Selected works]Izbrannye trudy. Moskva, Izd-vo Akad. nauk
SSSR. Vol.7. 1962. 592 p.   (MIRA 15:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Saukov).
2. Chlen-korrespondent Akademii stroitel'stva i arkhitektury
SSSR (for Mamurovskiy).
                         (Precious stones)

FERSMAN, A.Ye., akademik

Konstantin Eduardovich TSiolkovskii (to be continued). Tekh.
mol. 31 no.3:8-9 '63.   (MIRA 16:6)

(TSiolkovskii, Konstantin Eduardovich, 1857-1935)

FERSMAN, A.Ye., akademik

Konstantin Eduardovich Tsiolkovskii (conclusion). Tekh.mol. 31
no.4:24-25 '63.   (MIRA 16:6)
        (Tsiolkovskii, Konstantin Eduardovich, 1857-1935)

FERSMAN, A.Ye.; FERSMAN, Ye.M.

Tietta; from the past of the Khibiny Mountains. Priroda 54 no.6:
96-103 Je '65.   (MIRA 18:6)

FERSHMAN, B. A.

FERSHMAN, B. A. - "Experimental investigation of the laws of distribution of the signal and the calculation of nonlinear distortions along the radio-broadcast beam." Leningrad, 1955. Min Communications USSR. Leningrad Electrical Engineering Inst of Communications imeni Professor M. A. Bonch-Bruyevich. (Dissertations for degree of Candidate of Technical Sciences.)

SO: Knizhnaya letopis', No 48. 26 November 1955. Moscow.

FERSMAN, B.A.

AUTHOR   PETRZHAK, K.A.,BAK, M.A.,FERSMAN,B.A.,   PA - 2718
TITLE   Determination of the Absolute Number of Neutrons emitted by a Radium-
            Beryllium Source by Comparison with a Photoneutron-Deuterium Source.
            (Opredeleniye absolutnogo chisla neytronov,ispuskayemykh radiy-berili-
            yevym istochnikom, sravneniyem s fotoneytronnym deyteriyevym istochni-
            kom.,Russian)

ABSTRACT   The authors develop a comparatively simple method realizable in any
            laboratory for the gauging of neutron sources. For the purpose of de-
            termining this absolute neutron number two problems have to be solved.
            1) Determination of the absolute number of photoprotons produced in a
            given volume with gaseous deuterium at a known pressure and at a known
            temperature. The gas is then replaced by heavy water and by this a
            so-called primary neutronstandard is produced which emits a certain num-
            ber of neutrons. 2) By comparison with this primary standard the absolu-
            te numberof neutrons is obtained which is emitted within the time unit
            of the Ra-Be-source. Experimental arrangement is discussed on the ba-
            sis of a drawing. The ionization chamber consists of a nickel hollow
            sphere and a hollow brass finger serves as collecting electrode. Re-
            cording of the photoprotons is given step by step.The relative neu-
            intensities of the γ-D-source and of theRa-α-Be source were determi-
            ned by comparaison of the integral spatial distributions of slow neu-
Card 1/2   trons in water. The neutrons were howed down by water which is con-

Determination of the Absolute Number of Neutrons   PA - 2718
emitted by a Radium-Beryllium Source by Comparison with a Photo-
neutron-Deuterium Source.

tained in a ~1 m high cylindrical vessel.
Results. The authors carried out 6 measuring series for the determi-
nation of the absolute number of the photoprotons produced in the
chamber under the influence exercised by γ-rays. The intensities of the
Ra-α-Be-source computed by means of these measuring values are shown
together in a table. The absolute number of the neutrons emitted
from the radium-beryllium source investigated hereamounts to
$(9,4 \pm 0,6).10^5$. For the purpose of improving accuracy the devellop-
ment of this method is being continued.
(7 ill.and 1 table)

ASSOCIATION
PRESENTED BY
SUBMITTED
AVAILABLE   Library of Congress
Card 2/2

F E R S M A N, B. A.

46-3-9/15

AUTHOR: Fersman, B.A.

TITLE: An Experimental Study of Statistical Properties of Broadcast
Musical and Speech Signals (Eksperimental'noye issledovaniye
statisticheskikh svoystv muzykal'nykh i rechevykh radio-
veshchatel'nykh signalov)

ABSTRACT: Methods of mathematical statistics have recently been
applied in investigations of various processes which occur
in radiotechnical devices. In particular, in the case of
broadcasting, there is a tendency to use fundamentally new
methods of studying nonlinear distortions, based on the
fact that the broadcast radio signal can be looked upon as
a random stationary process (Refs.1-4). When carrying out
such studies it is necessary to know the distribution func-
tion of the probability density for instantaneous values of
the signal. At present such distribution functions for
real signals are not very well known. It is still unknown
whether a radio broadcast signal has a stable distribution
and, if so, what is the minimum duration of the signal for

Card 1/4

46-3-9/15

An Experimental Study of Statistical Properties of Broadcast Musical and Speech Signals.

which the distribution can be considered stable. The elucidation of these two questions is the object of the present work. To study the distribution function of probability density of instantaneous values of radio broadcast signals, an apparatus was developed which is shown in Fig.1. The principle of the apparatus is as follows: a blocking generator, 1, produces pulses of constant height and a definite repetition frequency. These pulses then enter the modulator, 2, and are mixed with the input signal, 3, which is being investigated. The signal, 3, is first passed through the amplifier, 4, whose amplification can be varied. The output of the modulator will consist of pulses with the original repetition frequency but having an envelope corresponding to the form of the input signal, 3. In order to obtain a sufficiently good resolution the modulated signal is amplified and is examined by a differential discriminator, 5. The differential discriminator consists of 2 limiters, 6 and 7, and a cascade of anticoincidences, 8. The limiters 6 and 7 differ from each other only in that their limiting thresholds differ by a constant amount. As a result of this, at the output of the differential discrimina-

Card 2/4

46-3-9/15

An Experimental Study of Statistical Properties of Broadcast Musical and Speech Signals.

tor one obtains the pulses only if the magnitude of the input pulse is larger than the threshold of the first limiter but less than that of the second. This "window" of the discriminator can be moved along the voltage scale at constant window width. The pulses obtained from the discriminator are recorded by a counting unit, 9. Using this apparatus, the statistical properties of real radio broadcast signals were studied. Experiments were carried out using tape recorders so that a given programme could be repeated the required number of times. The distribution curves were taken for a symphonic orchestra, a variety orchestra, pianoforte and speech. The following conclusions were reached: the distribution of instantaneous values of a radio broadcast signal does not obey the normal distribution law but is well represented by a Cauchy distribution. A radio broadcast musical signal has a distribution of the form $\exp(-|x|/x_0)$ where the parameter x_0 depends on the "type" of music. A radio broadcast signal of more than 2 minutes' duration has a stable distribution. For engineering purposes where all

Card 3/4

46-3-9/15

An Experimental Study of Statistical Properties of Broadcast Musical and Speech Signals.

the possible types of signals have to be considered it is convenient to use a "mean" distribution which can be looked upon as normal. The work was carried out under the direction of A.V. Rimsky-Korsakov. There are 9 figures, and 8 references, of which 1 is English and the rest are Russian.

ASSOCIATION: Leningrad Electrotechnical Institute of Communication im.M.A.Bonch-Bruye v i ch (Leningradskiy elektrotekhnicheskiy institut svyazi im.M.A.Bonch-Bruyevicha)

SUBMITTED: December 20, 1956.

AVAILABLE: Library of Congress.

Card 4/4

FERSMAN, B.A.; PAK, I.N.; ZAYEZDNIY, A.M., red.; GAL'CHINSKAYA, V.V., tekhn. red.

[Tables and formulas of sums of trigonometric series of the type

$$\sum_{n=1}^{\infty} \frac{I_n(r)}{n^2+a^2} \cos nx \text{ and } \sum_{n=1}^{\infty} \frac{nI_n(r)}{n^2+a^2} \sin nx \text{ textbook}]\text{Tablitsy i for-}$$

muly summ trigonometricheskikh riadov vidov

$$\sum_{n=1}^{\infty} \frac{I_n(r)}{n^2+a^2} \cos nx \text{ i } \sum_{n=1}^{\infty} \frac{nI(r)}{n^2+a^2} \sin nx; \text{ uchebnoe posobie. Pod red.}$$

A.M.Zaezdnogo. Leningrad, 1961. 47 p.   (MIRA 15:12)

1. Leningrad. Elektrotekhnicheskiy institut svyazi.
    (Fourier series) (Mathematics—Tables, etc.)

ZAYEZDNYY, A.M.; FERSMAN, B.A., retsenzent; KHANOVICH, I.G., red.

[Principles of statistical radio engineering; a manual
(chapters 3-6)] Osnovy statisticheskoi radiotekhniki;
uchebnoe posobie (par.3-6). Leningrad, Leningr. elektro-
tekhn. in-t sviazi, 1964. 104 p.   (MIRA 18:8)

FERSMAN, A.Ye.; FERSMAN, Ye.M.

Tietta; from the past of the Khibiny Mountains. Priroda 54 no.6:
96-103 Je '65.   (MIRA 18:6)

FERST, V.

Pneumatic controllers of temperature for TS and TN air conditioners. p. 76.

ZDRAVOTNI TECHNIKA A VZDUCHOTECHNIKA. (Ceskoslovenska akademie ved. Ceskoslovenska vedecka technika spolecnost pro zdravotni techniku a vzduchotechniku) Praha, Czechoslovakia. Vol 2, no. 2, 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, no. 7, July 1959. Uncl.

L-42985-66   EWP(m)/EWT(1)

ACC NR: AP6012155   SOURCE CODE: UR/0413/66/000/007/0072/0072

INVENTOR: Festenshteyn, M. S.; Krysin, Yu. P.; Zagarov, V. V.

ORG: none

TITLE: Device for testing samples of materials for thermal shock. Class 42, No. 180388

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 72-73

TOPIC TAGS: thermal fatigue, fatigue test, combustion chamber, material testing

ABSTRACT: An Author Certificate has been issued describing a device for testing samples of materials for thermal shock in gas flow. The device contains a combustion chamber with a programming element for controlling the supply of fuel to the combustion chamber. To determine the resistivity of samples to thermal fatigue due to thermal overload alternating with time, the actuating mechanism of the programming element is designed in the shape of a slide valve arrangement with a camshaft-type electromechanical gear (see Fig. 1). Orig. art. has: 1 figure. [Translation] [NT]

Card 1/2   UDC: 620.178.38-529

L 42985-66

ACC NR: AP6012155
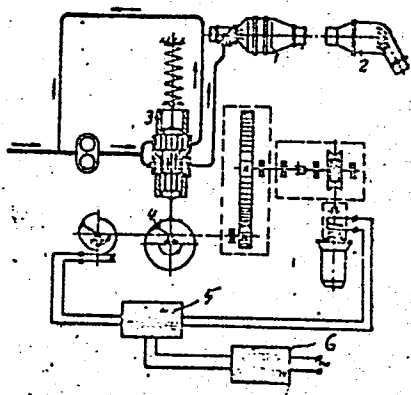
Fig. 1. Device for testing samples of
materials for thermal shock.
1—Combustion chamber;
2—blow-through mechanism;
3— slide valve arrangement;
4— camshaft gear; 5— time
relay; 6— power-supply unit.

SUB CODE: 13/   SUBM DATE: 03Jul64/

Card   2/2 hs

FERSTER

POLAND/Microbiology - Microorganisms Pathogenic to Humans and   F-5
          Animals.

Abs Jour   : Ref Zhur - Biol., No 3, 1958, 99

Author   : Lyakhovich, Romanovskiy, Ferster
Inst   : -
Title   : Investigation of Staphylococci Carrying.

Orig Pub : Med. doswiad. i mikrobiol., 1956, 8, No 4, 463-472

Abstract : 1007 children aged up to 14 years were investigated re-
            garding carrying of staphylococci. In 516 children
            (51.24%) a culture of pyogenic coagulase positive sta-
            phylococcus was isolated. In 181 (35.09%) children
            staphylococci were found in the pharynx and nose, in
            231 (44.76%) in the nose only, and in 104 (20.15%) in
            the pharynx only. In 232 (44.96%) of the 516 carriers
            penicillin-resistant staphylococci strains were isolated.
            Of 685 coagulase positive strains, 397 (58%) were sensi-
            tive to penicillin and 211 (30.8%) were resistant to

Card 1/2

POLAND/Microbiology - Microorganisms Pathogenic to Humans and   F-5
          Animals.

          streptomycin. Carrying of pyogenic staphylococcus posses-
          sing antagonistic properties comprised 7.8%. Some antago-
          nistic strains were resistant to penicillin.

Card 2/2

FERSTER, N.P.

    Characteristics of tactile-motor orientation [with summary in English].
    Vop.psikhol. 4 no.4:53-57 Jl-Ag '58.   (MIRA 11:11)

    1. Institut psikhologii Akademii pedagogicheskikh nauk RSFSR.
                (Orientation)

KUNAYEV, A.M.; FERT, M.I.

Cathodic polarization during the electrolysis of sulfuric acid
solutions of vanadium and zinc. Trudy Inst. met. i obog. AN
Kazakh. SSR 14:53-57 '65.

Investigating cathodic polarization during the electrolysis
of alkaline solutions of vanadium and zinc. Ibid.:58-61
                                        (MIRA 18:10)

DORYWALSKI, Jozef; FERTALA, Kozimierz

The influence of some methods of sowing corn on yields. Rocz nauk
roln rosl 80 no.3:495-512 '60.   (EEAI 9:10)

1. Katedra Ogolnej Uprawy Roli i Roslin Wyzszej Szkoly Rolniczej
w Poznaniu i Instytut Uprawy, Nawozenia i Gleboznawstwa.
        (Poland--Corn (Maize))

CERTEK, Otakar; MANYCH, Jiri

Rubrophytosis (T. purpureum Bang 1910). Cesk. derm. 36 no.7:469-474
'61.

1. Dermatovenerologicka klinika LFHKU, prednosta prof. MUDr. J. Konopik,
Dr. Sc. Laborator pro lekarskou mykologii katedry epidemiologie LFHKU,
vedouci katedry prof. MUDr. K. Raska, Dr. Sc.

(RINGWORM)

The Use of Exothermic Reaction for the
Yearly and A.F. Osokova
Czechoslovak Metal
at the AKL chain rea
information provide by pr
centures up to this and a
in your

FERTEL', G.Ya.

Boring apparatus for rotary boring of water wells. Vod.i san.tekh.
no.1:13-15 Ja '57.   (MIRA 10:3)
            (Boring)

Fertel, G. Ya.

AUTHOR: Fertel', G.Ya., Engineer   99-58-3-3/12

TITLE: Practical Methods for Removing Clay Obstructions in the Water-
             bearing Layers of Artesian Wells   (Prakticheskiye metody
             razglinizataii vodonosnykh plastov v artezianskik skvazhinakh)

PERIODICAL: Gidrotekhnika i Melioratsiya, 1958, # 3, pp 10-17 (USSR)

ABSTRACT: The building of water-supply systems, especially in highly-
             mechanized agricultural organizations, requires special atten-
             tion by persons in charge of the artesian borings. All over
             the country, hundreds of inoperative wells are found, because
             the authorities in charge did not observe basic precautions
             during boring operations. Experienced personnel have found,
             that in rotory boring, when all the conditions and the method
             of removal of clay obstructions in the water-bearing layers
             are observed, the results are always positive. Different kinds
             of drilling fluid must be used in different cases. The
             degree of viscosity of the drilling fluid also is important.
             A fluid with a low viscosity penetrates deeper into the layer
             and forms a crust that is difficult to remove, while a fluid
             with a high viscosity penetrates only slightly, and the crust
Card 1/2   can be easily removed. Different methods of removing clay

99-58-3-3/12

Practical Methods for Removing Clay Obstructions in the Water-bearing
Layers of Artesian Bore Holes.

        obstructions and detailed information on each case is given.
          There are 10 figures.

AVAILABLE: Library of Congress

Card 2/2

FERTEL', G.Ya.

Construction of water wells by the method of rotary boring
should be improved. Vod. i san. tekh. no.8:30-31 Ag '58,
    (Boring)   (Wells)   (MIRA 11:9)

FERTEL'MEYSTER, Ya.N.; OVSIYENKO, P.I.; ZENINA, M.N.

Quality of grease for hoisting cables. Trudy MakNII 12: Vop.
gor. elektromekh. no.4:367-373 '61.   (MIRA 16:6)

(Wire rope)
(Lubrication and lubricants)

FERTEL'MEYSTER, Yu. N.

CA

Ultramicrobalance. I. M. Korenman and Ya. N.
Fertel'meister. Zavodskaya Lab. 15, 785-90(1949).—
An ultramicrobalance is described which is capable of
accurate weighings in the 20-600 γ region with 3-5%
accuracy. The principle is the usual quartz or steel fiber
mounted horizontally and observed by a telescope. The
use in weighings, density detns., and analytical procedures
is described.   G. M. Kosolapoff

Gor'kiy State U.

C.A. FERTEL'MEYSTER, Ya. N.

1

Torsion ultramicrobalances. I. M. Korenman, Ya. N. Fertel'meister, and A. P. Rostokin. *Zavodskaya Lab.* 16, 900-6(1950); cf. *C.A.* 44, 2c.—Several modifications of ultramicrobalances are described, with discussion of basic operational principles. Balances capable of weighing 1 γ : specimens with 10-15% error are described as are the procedures in their use.   O. M. Kosolapoff

FERTEL'MEYSTER,Ya.N.; BABICHENKO,I.L.; DUH,D.L.

Radiographic determination of quartz in rock and coal powder. Zav.
lab. 21 no.6:702-705 '55.   (MIRA 8:9)

1. Makeyevskiy nauchno-issledovatel'sk__ institut po bezopasnosti
rabot v gornoy promyshlennosti
                    (Quartz) (Dust--Analysis)

Relation of some properties of coals and carbonaceous rocks to their geological characteristics. Ye. N. Bartel'-

The determination of small amounts of nitrogen ...
P. Novikova, Ya. N. Feldmann and ...
Research Inst. ... in ... Mettal...
Zavolskaya Lab. 23. 288 ...
CO det'n were compared ... the best result ...
by conductometric detn in ...

BEKIRBAYEV, D.B.; GRODEL', G.S.; GUL'SHIN, P.A.; KLEPIKOVA, M.S.; PETRU-
KHIN, P.M.; POLYANSKIY, I.P.; RASSOLOV, N.I.; TARASOVA, A.A.;
FERTEL'MEYSTER, Ya.N.; CHERVINSKIY, M.S.; SHANOVSKAYA, S.S.;
KLIMANOV, A.D., otv.red.; ZHUKOV, V.V., red.izd-va; PROZOROVSKAYA,
V.L., tekhn.red.; KONDRAT'YEVA, M.A., tekhn.red.

[Control of coal and rock dust in mines] Bor'ba s ugol'noi i porod-
noi pyl'iu v shakhtakh. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
gornomu delu, 1959. 499 p.   (MIRA 13:3)
                         (Mine dusts)

FERTEL'MEYSTER, Ya.N., kand. khim. nauk; KRIGMAN, F.Ye., inzh.; KRIVITSKIY,
     M.D.; VARAKIN, A.M.

     Using gamma rays to measure the thickness of the settled layer of
     coal dust. Ugol' 34 no.1:48-50 Ja '59.   (MIRA 12:1)
         (Mine dusts) (Coal mines and mining--Safety measures)
         (Gamma rays--Industrial applications)

AUTHOR: Fertig, Margareta

TITLE: On the behavior of integrals of linear differential equations with
               constant coefficients which are functions of a parameter

PERIODICAL: Referativnyy zhurnal, Matematika, no. 11, 1962, 42, abstract 11B178
               (Studia Univ. Babeş-Bolyai. Math.-phys., 1960, no. 1, 121 - 130;
               Rumanian; summaries in Russian, French)

TEXT: The author considers the linear equation with constant coefficients

$$\varepsilon y^{(n)} + \lambda_1 (\varepsilon) y^{(n-1)} + \ldots + \lambda_n (\varepsilon) y = f(x), \tag{1}$$

where ε is a small parameter. The solution $y(x, \varepsilon)$ of that equation is inves-
tigated, which satisfies the initial condition $y^{(i)} (0, \varepsilon) = B_i (\varepsilon)$ $(i = 0, \ldots,$
$n - 1)$. Let

$$\lambda_1 (0) = 0, \quad \lambda_2 (0) \neq 0, \quad \lim_{\varepsilon \to 0} \frac{\lambda_1 (\varepsilon)}{\varepsilon^q} = a \ (q > 0); \quad \lim_{\varepsilon \to 0} B_i (\varepsilon) \neq y_0^{(i)},$$

Card 1/2

$(i = 0, 1, ..., n - 3)$, $\lim_{\varepsilon \to 0} B_{n-2}(\varepsilon) = B_{n-2}^0$, $\lim_{\varepsilon \to 0} B_{n-1}(\varepsilon) = B_{n-1}^0$.

It is demonstrated that, if $q \neq \frac{1}{2}$, $a > 0$ and $\lambda_2(0) > 0$, then $\lim_{\varepsilon \to 0} y(x, \varepsilon) = \overline{y}(x)$, where $\overline{y}(x)$ is defined by the degenerate equation obtained from (1), if in it one formally sets $\varepsilon = 0$, with the initial condition $\overline{y}^{(i)}(0) = y_0^{(i)}$ ($i = 0, ..., n - 3$). If $q = \frac{1}{2}$ then the proposition holds in the presence of the additional condition $\lambda_2(0) > \frac{a^2}{4}$. If $q \geqslant 1$ then the propagation remains valid also for $a < 0$.

A.B. Vasil'yeva

[Abstracter's note: Complete translation]

Card 2/2

16 3400

37594
S/044/62/000/004/031/099
C111/C444

AUTHOR: Fertig, M.

TITLE: On the behavior of the solutions of a system of diffe-
             rential equations with a small parameter

PERIODICAL: Referativnyy zhurnal, Matematika, no. 4, 1962, 40,
             abstract 4B177. (Mathematika (RPR), 1960, 2, no, 2,
             217 - 252)

TEXT: Considered is the system with the small parameter

$$\varepsilon \dot{x} = X(x, u) + \varepsilon V(x, u, \varepsilon), \quad \dot{u} = U(x, u, \varepsilon) \qquad (1)$$

(x, u being vectors). Let

$$H_i(x, u) = h_i (i = 1,..., n - 1)$$

be n - 1 independent first integrals for the system $\dot{x} = X(x, u)$
(where u is considered a constant parameter), the solutions of which
are $x = \bar{x}(\tau + C, h_1,..., h_{n-1}, u)$ (C being an arbitrary constant).

It is supposed that there exists a system of periodic functions
$y(\tau, h_1,..., h_{n-1}, u)$ such that

Card 1/2

On the behavior of the solutions ...

$$\lim_{\tau \to \infty} \left[y(\tau, h_i, u) - {}^-x(\tau, h_i, u) \right] = 0.$$

It is proved that then for $\varepsilon \to 0$ for the solutions $x(t, \varepsilon)$, $y(t, \varepsilon)$ of the system (1) holds

$$H_i(x(t, \varepsilon), u(t, \varepsilon)) \to \bar{h}_i(t), \quad u(t, \varepsilon) \to \bar{u}(t),$$

where $\bar{h}_i$, $\bar{u}_i$ are solutions of the system $\dot{\bar{h}}_i = H_i(\bar{h}, \bar{u})$, $\dot{\bar{u}} = U(\bar{h}, \bar{u})$, the right hands of which are obtained by averaging with respect to the time the functions

$$\sum \frac{\partial H_i}{\partial x_j} V_j + \sum \frac{\partial H_i}{\partial u_j} U_j \text{ and } U,$$

in the arguments of which $y(\tau, \bar{h}, \bar{u})$ are substituted.

[Abstracter's note: Complete translation.]

Card 2/2

37597

S/044/62/000/004/034/099
C111/C333

AUTHOR: Fertig Frenkel, Margareta

TITLE: The asymptotic behavior of the integrals of a differential
             equation of hydrodynamics of viscous fluids

PERIODICAL: Referativnyy zhurnal, Matematika, no. 4, 1962, 43,
             abstract 43186. ("Comun. Acad., RPR", 1961, 11, no. 6,
             631-637)

TEXT: The differential equation

$$\varepsilon \frac{dy}{dx} = \frac{1}{h^2(x)}\left(1 - \frac{c(\varepsilon)}{y^{\frac{1}{\gamma}}h(x)}\right), \quad \varepsilon > 0, \quad y(0,\varepsilon) = y_0$$

is considered. It is proved: If $\lim\limits_{\varepsilon \to 0} c(\varepsilon) = c_0$, where $0 < c_0 < y_0^{\frac{1}{\gamma}}h(0)$,

then $\lim\limits_{\varepsilon \to 0} y(x,\varepsilon) = +\infty$. If, however, $c_0 > y_0^{\frac{1}{\gamma}}h(0)$, then there

Card 1/2

The asymptotic behavior of the ...

S/044/62/000/004/034/099
C111/C333

exists no interval $(0,x')$, $x' > 0$ independent of ε, on which $y(x, \varepsilon) > 0$
for every ε.

[Abstracter's note: Complete translation.]

Card 2/2

FERTIG, Stanislaw.

Growth patterns of bacilli cultivated on chicken egg yolk.
Arch. immun. ter. dosw. 8 no.1:77-100 1960.

1. Katedra Mikrobiologii Wydzialu Weterynaryjnego, Wyzszej
Szkoly Rolniczej we Wroclawiu, Kierownik: Prof. dr A. Skurski.
        (MYCOBACTERIUM TUBERCULOSIS culture)

FERTIG, Stanislaw

Area irrigated with sewage. Its hygienic and sanitary evaluation.
II. Examination of rodents from fields irrigated with sewage for
the presence of tubercle bacilli. Acta microbiol. pol. 10 no.4:
433-437 '61.

1. Z Katedry Mikrobiologii Sydzialu Weterynaryjnego Wyzszej Szkoly
Rolniczej we Wroclawiu. Acta microbiol. pol. 10 no.4:433-437 '61.
        (SEWAGE microbiol)   (RODENTS microbiol)
            (MYCOBACTERIUM TUBERCULOSIS)

FERTIG, S.

FERTIG, Stanislaw; SIELICKA, Stanislawa

Phagocytosis of variants of Pasteurella pseudotuberculosis.
Acta microbiol. pol. 12 no.4:293-295 '63.

1. From the Department of Microbiology, Faculty of Veterinary
Medicine, Wroclaw School of Agriculture.
            (PASTEURELLA INFECTIONS)   (PHAGOCYTOSIS)

POLAND

FERTIG, Stanislaw, JASINSKA Stanislawa, KUPROWSKI, Marian,
and WACHNIK, Zenon; Chair of Microbiology (Katedra Mikro-
biologii) (Director: Prof. Dr. Adam SKURSKI), Chair of
Epizootiology (Katedra Epizootiologii) (Director: Prof. Dr.
Tadeusz SOBIECH), and the Chair of Pathological Anatomy
(Katedra Anatomii Patologicznej) (Director: Prof. Dr. Alek-
sander ZAKRZEWSKI), all of the WSR [Wyzsza Szkola Rolnicza,
Higher School of Agriculture] in Wroclaw

"Diagnosis of Listeriosis in Sheep."

Warsaw-Lublin, Medycyna Weterynaryjna, Vol 19, No 7, Jul 63,
pp 386-391

Abstract: [Authors' English summary] Authors describe
centers of listeriosis in sheep in areas where the dis-
ease was not previously recorded. They find that histo-
logical examinations are of great diagnostic value, and
that focal, purulent inflammation of the cerebral stem
appears to be a typical pathognomic characteristic of
this disease in sheep. There are 26 references: 4 each
Soviet and Polish, 3 Western, and 14 German.
1/1

12

FERTIK, I.M.; LIBERTAL', R.Sh.; PLEMYANNIKOVA, M.Ye.

Tuberculin-trypan test; increase of sensitivity in the method of
detection of allergy. Probl. tuberk., Moskva no.1:46-51 Jan-Feb 52.
(CLML 21:5)

1. Docent for Fertik. 2. Of the Children's Division (Head--Docent
I.M. Fertik) and of the Department of Microbiology (Consultant--
Prof. V.M. Berman), Leningrad Scientific-Research Tuberculosis
Institute (Director--A.D. Semenov).

strength of 88⁰. The 90C° specimen had the finest fracture. The Brinell hardness of the case of all specimens was in the range 804 to 941. The depth of the nitrided case was 0.57 ... mm for condition (2). For condition (1) the

18.7500

78125
SOV/129-60-3-4/16

AUTHOR: Fertik, N. A. (Engineer)

TITLE: Increased Brittleness of Nitrided Layer of Steel
            38KhMYuA

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
            1960, Nr 3, pp 13-16 (USSR)

ABSTRACT: This is a description of experimental tests conducted
            for verification of causes of increased brittleness in
            nitrided layers of steel. Such layers are subject to
            "point chipping" during grinding (the depth of such
            chipping varies from a few microns to 0.020-0.50 mm).
            The brittleness is usually evaluated by the shape of
            diamond pyramid impressions. Large internal stresses
            are formed in the nitrided layer. The magnitude of
            these stresses is affected by the initial structure of
            steel (the method of heat treatment), by the condition
            of nitrided surface, by the geometry of workpiece,
            and the method of nitriding. It is supposed that the
Card 1/4   internal stresses, augmented by the external stresses

Increased Brittleness of Nitrided Layer   78125
of Steel 38KhMYuA   SOV/129-60-3-4/16

are one of the causes of increased brittleness of
nitrided layer, as tested by the diamond pyramid. The
tests were conducted on 38KhMYuA steel (composition
not given). Six 230-mm-long rods were cut from 38-mm-
diameter rod. From the rods Nr 1, 3, and 4 were made
six samples from each, three of which had a hole
(see Fig. 1). From rods Nr 2 and 5 were made six
samples with holes. The samples with holes were

nitrided at 525° C for a period of 20 hr and at 540° C
for 15 hr. The samples without holes, after tin-

plating of faces, were nitrided at 525° C for 25 hr and

at 540° C for 45 hr. The results of tests are de-
scribed. The author arrived at the following con-
clusions. (1) The brittleness of nitrided layer
during indentation into it of diamond pyramid (ave-
rage value of 10 impressions) can serve as a criterion
for evaluation of the tendency of nitrided layer to
"rash" during grinding. (2) The brittleness
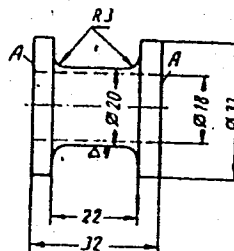Card 2/4.   evaluated by the shape of the diamond pyramid impressions

Increased Brittleness of Nitrided Layer   78125
of Steel 38KhMYuA   SOV/129-60-3-4/16

Fig. 1. Sample for testing
brittleness of the nitrided
layer.

depends not only on the true brittle strength of the
layer but on the magnitude of compression stresses in
it as well. With other conditions equal, the higher
the compression stresses in the layer, the higher is
the possibility of "rash" formation during grinding.
(3) The formation of "rash" on nitrided layer is
due to compression stresses caused by the sharp heating
of the surface. (4) The increase of hardness in the

Card 3/4

Increased Brittleness of Nitrided Layer   78125
of Steel 38KhMYuA   SOV/129-60-3-4/16

core of a workpiece made from nitrided steel is fol-
lowed by the increase of nitrogen content and of
compression stresses in the layer, which results in
the increase of its brittleness. (5) The more
complete the hardening (the higher is the hardness
after hardening), the lower is the brittleness of

nitrided layer. Hardening from 900° C, instead of 950°
C, increases the brittle strength of the layer in bending
test and lowers its brittleness during the tests
with diamond pyramid. (6) The lowering of layer's
brittleness, which is observed with the increase of
nitriding temperature, is explained by lowering of
compression stresses. There are 7 figures and 4 Soviet
references.

Card 4/4

Soveshchaniye po uprochneniyu detaley mashin, 1962.

advantages of nitriding

electric furnace with automatic temperature regulation was used. The furnace
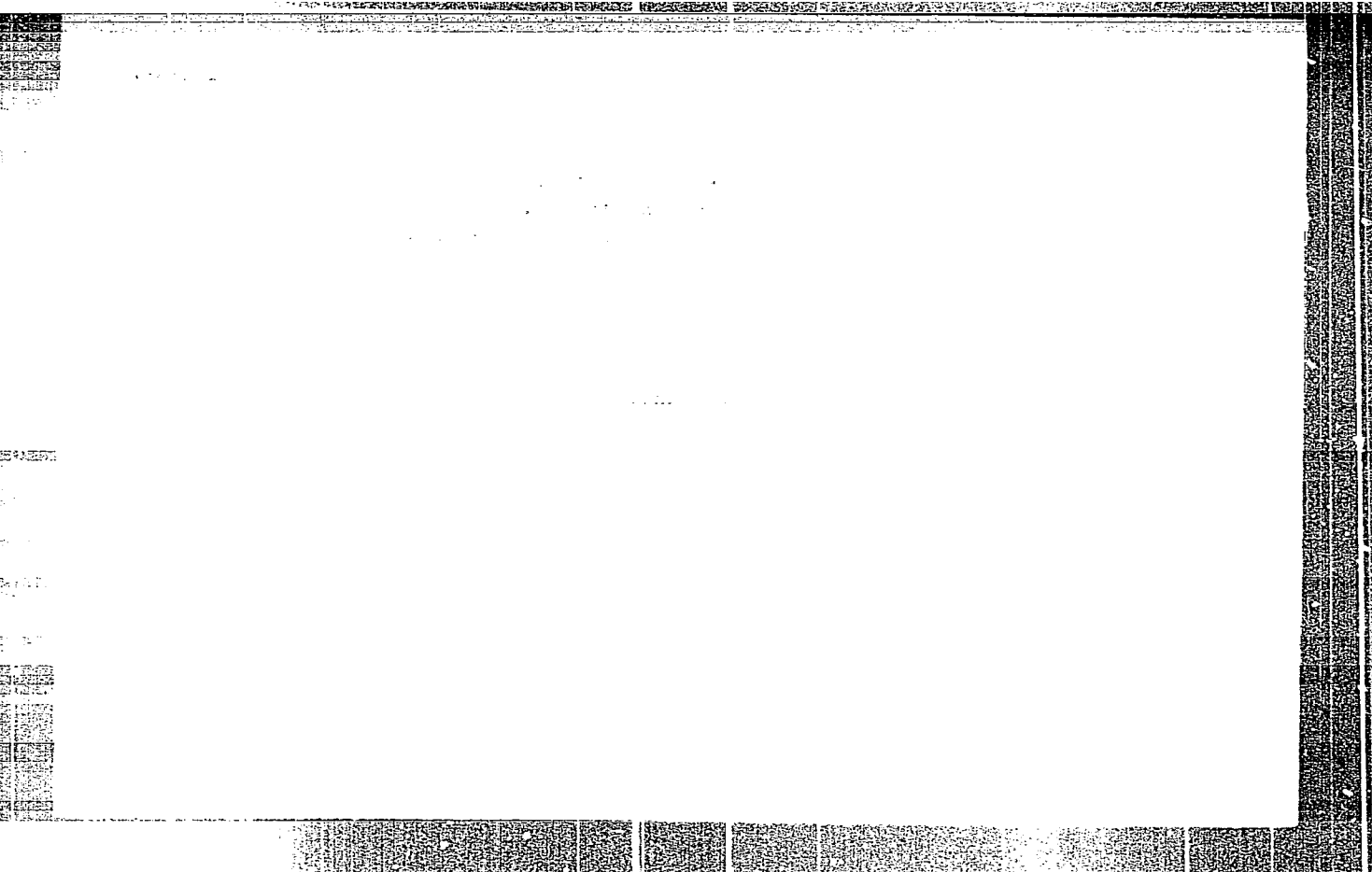
FERTIK, S. M.

"Research on Grounds in Poorly Conducting Soils," Elektrichestvo, 67, No.2, 1947

Khar'kov Electro-Tech. Inst.

FERTIK, S. M.

Fertik, S. M. "Commutation in a mechanical rectifier with contact-breaking choke coils", Sbornik nauch.-tekhn. statey Khar'k. elektrotekhn. in-ta, Issue 7, 1948, p. 76-96,- Bibliog: 5 items.

So: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

FERTIK, S. M.

Fertik, S. M. "Induced erratic waves in a three-phase non-transposed transmission line", Sbornik nauch.-tekhn. statey Khar'k. elektrotekhn. in-ta, Issue 7, 1948, p. 319-27.

So: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

Electricity + Electronics 53

944*   Mechanical Rectifiers of High Capacity. (Russian.)
S. M. Fertik, *Elektrichestvo*, Jan. 1952, p. 83-85.
Presents a review of the above including American and Western
European developments.

SIROTINSKIY, Leonid Ivanovich. Prinimali uchastiye: RAZEVIG, D.V.,
dotsent; VERESHCHAGIN, I.P., aspirant. FERTIK, S.M., retsen-
zent; GONCHARENKO, G.M., red.; KORUZEV, N.N., tekhn.red.;
LARIONOV, G.Ye., tekhn.red.

[Technology of high voltages] Tekhnika vysokikh napriazhenii.
Moskva, Gos.energ.izd-vo. Pt.3, no.1. [Wave processes and
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TITLE: ·   Unattended Electron-Ray Oscillographs for Recording
             Single Pulses

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ABSTRACT: The authors describe the specific features of unattend-
             ed electron-ray oscillographs for recording single
             pulses. One of the authors worked on such a device al-
             ready in 1940/41 together with N.A. Chebotarev, Can-
             didate of Technical Sciences who was at that time a
             student at KhETI. The authors describe a small-size
             unattended electron-ray oscillograph EMAO-2 of which
             the circuit diagram is shown in Figure 4. This device
             is designed for recording single pulses of a duration
             of up to 15 microseconds using ordinary 35 mm camera
             film. An 7L055 electron-ray tube was used whereby the
             electrode voltages were selected higher than indicat-
             ed in the factory data records. The voltage at the
Card 1/3   second anode was increased to 1,200 volts and at the

third anode to 3,200 volts. Figures 5, 6 and 7 show
photographs of this device. It has the dimensions of
20x18x23 cm and may be combined with a camera whereby
the dimensions increase to 20x18x50 cm. During the
period of 1953-1954 a normal-size unattended oscillo-
graph AEO-1 was developed with the participation of
Docent A.L. Vayner. This device has the dimensions
90x24x100 cm and is combined with a "Zenit" camera
using 35 mm film. The device may be used for investi-
gating lightning protectors. The scanning duration
is 15, 50 and 150 microseconds. The device has slave
sweep and may be operated by radio. Batteries 6STE-
128 and converter MA-250M provide the required power
for about 5 hours of operation. The cameras used for
the EMAO-2 and the AEO-1 use "Yupiter-3" lenses (F =
1:1.5). The EMAO-2 may be also operated by radio.

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